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September 19, 2019

#### Learning Objectives

Upon completion of this presentation, participants will be able to:

- 1. Describe PRAMS\* at both the national level and in the State of Wyoming.
- 2. Understand how to access and apply Wyoming PRAMS data to improve quality of care and health outcomes for preconceptual, pregnant and postpartum women.
- 3. Recognize the conditions and contributing factors of health inequities related to chronic disease (including diabetes, hypertension, and depression) among Wyoming women who have recently given birth.
- 4. Describe trends in preconceptual and prenatal substance use (including tobacco, alcohol, and other drugs) in Wyoming

<sup>\*</sup> Pregnancy Risk Assessment Monitoring System

### Pregnancy Risk Assessment Monitoring

System (PRAMS)

 A partnership with States and the Centers for Disease Control and Prevention.

 Collects state-specific population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy.



- Survey of new mothers 3-6 months postpartum (data are self-reported).
- Data are weighted to be representative of the state, not representative at the local level.
- PRAMS surveillance currently covers about 83% of U.S. births (47 states participate).

#### Wyoming PRAMS – The Process

- Every month, a random sample of births to Wyoming women that occur 3 months before is drawn from Wyoming Vital Records data. About 1 out of every 7 Wyoming women are sampled.
- Resident births that occur out of state (Colorado, Utah, etc.) are also included.
- Wyoming samples all births to American Indian women and oversamples low-birthweight births.
- Women are notified that they have been selected and are provided information about the survey. They may also choose to opt out of the survey (although we encourage them to complete it).

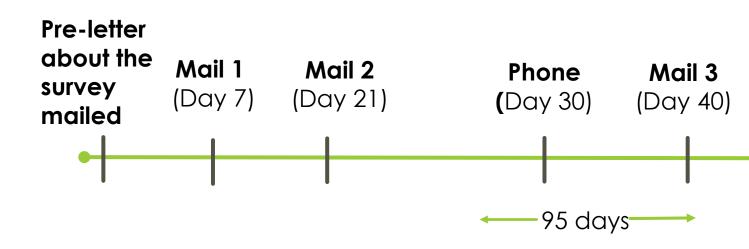


#### **Wyoming PRAMS History**

- Phase 5 (2007 2008)
- Phase 6 (2009 2011)
- Phase 7 (2012 2015)
- Phase 8 (2016 to present)

#### PRAMS Timeline – The Process

Our monthly sample is drawn from births occurring 3 months earlier then the month of the draw.





Batch Expired

#### Wyoming PRAMS - The Process

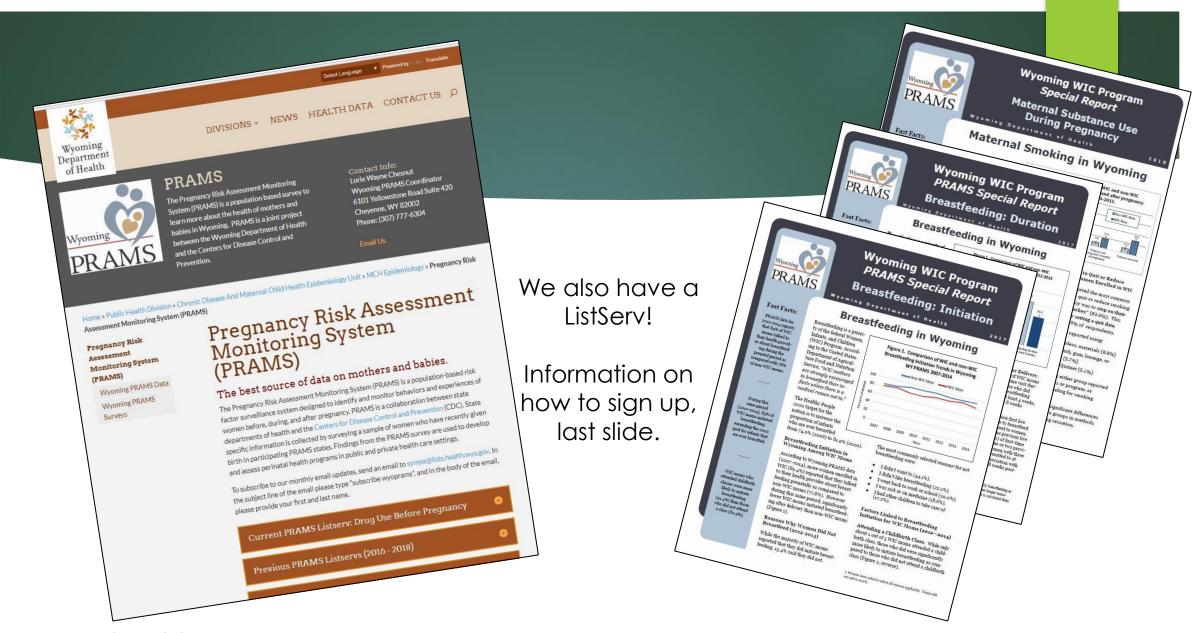
- Completed surveys are entered, rewards\* are sent.
- Each year, WY PRAMS data sets are submitted to the CDC for weighting. This gives us a picture about Wyoming resident women who delivered a live birth in a given year.
- Response rate (2012-2018) ranged from a low of 56% (2015) to a high of 63% (2014 & 2016). The average response rate during this period was 61%.



<sup>\*</sup>Rewards: Halo Sleep Sack for all moms (except those whose infants died), and a \$ 10.00 Walmart gift certificate for American Indian moms and those who respond by phone.

Where do I find PRAMS data and reports?





 $Web\ address: \ https://health.wyo.gov/publichealth/chronic-disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epi/disease-and-maternal-child-health-epidemiology-unit/mch-epidem$ 

Chronic Disease & Substance Abuse among women of childbearing age in Wyoming

AN INFORMAL "QUIZ" TO TEST YOUR KNOWLEDGE!





# Question 1. Match the <u>prepregnancy</u> condition to the self-reported response rate (%) by PRAMS Moms.

1. Diabetes

1. 4.4%

2. High Blood Pressure or Hypertension

2. 3.9%

3. Depression

3. 17.3%

#### THE QUESTION:

During the 3 months before you got pregnant with your new baby, did you have any of the following health conditions?

% of women responding "Yes"

Source: WY PRAMS Data 2016-2018

## **Question 2.** What % of Wyoming women said that they talked to their prenatal health care provider **about depression?**

A. 54%

B. 75%

C. 91%



Source: WY PRAMS Data 2016-2018

### Question 3. What topics were most often discussed and least often discussed with women during the prenatal care visit?

- A. Maternal Weight Gain
- B. Using Drugs\*
- C. Drinking Alcohol
- D. Smoking Cigarettes
- E. Feeling Down or Depressed



<sup>\*</sup> Includes marijuana, cocaine, crack, or meth.

Source: WY PRAMS Data 2016-2018

# **Question 4.** What proportion of new moms report that they drank during the 3<sup>rd</sup> trimester of pregnancy in Wyoming (2018)?

- 1. 20%
- 2. 7%
- 3. 3%
- 4. 15%



Source: Centers for Disease Control and Prevention

**Question 5.** The use of what drug was most commonly reported by women in the month **before** their pregnancy? WY PRAMS, 2016-2018.

- 1. Marijuana or Hash
- 2. Heroin
- 3. Adderall or another stimulant
- 4. Prescription Pain Relievers



Source: WY PRAMS Data 2016-2018

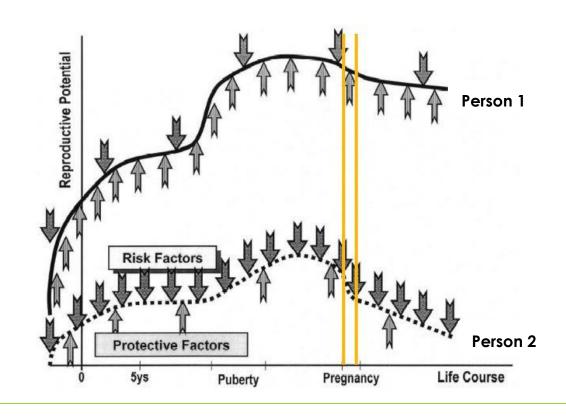
# Why We Care: The MCH Life Course Perspective

Individuals all have unique levels of risk and protective factors.

Public Health now looks at the impact across the lifespan, and not at just one point in time.

- Cumulative Stress
   Impact/Weathering
- Early Programming
- Intergenerational Reproductive Health Effects

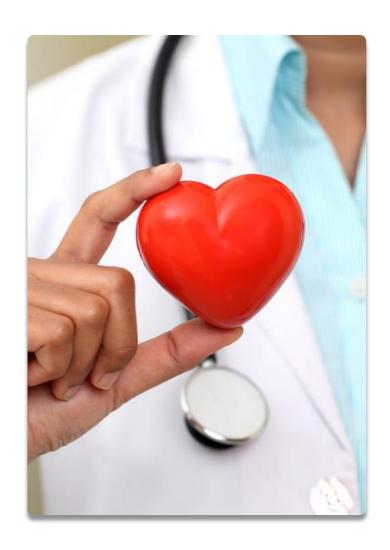
**Life Course Perspective** 



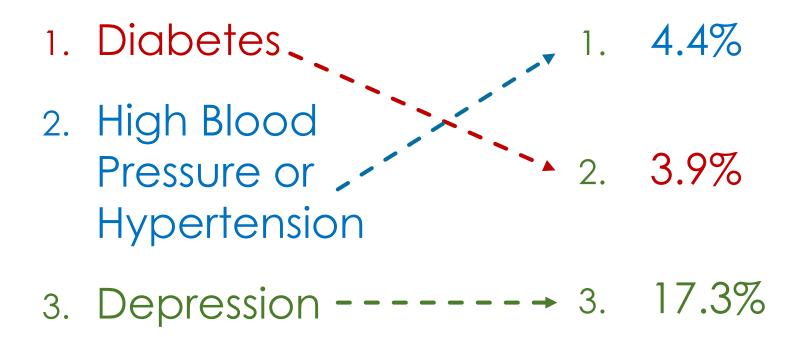
Adapted from: Lu MC, Halfon N. Racial and ethnic disparities in birth outcomes: a life-course perspective. Matern Child Health J. 2003;7:13-30

# Diabetes & Hypertension

- Preconception
- Prenatal
- Postpartum



## Question 1. Match the <u>prepregnancy</u> condition to the self-reported response by PRAMS Moms



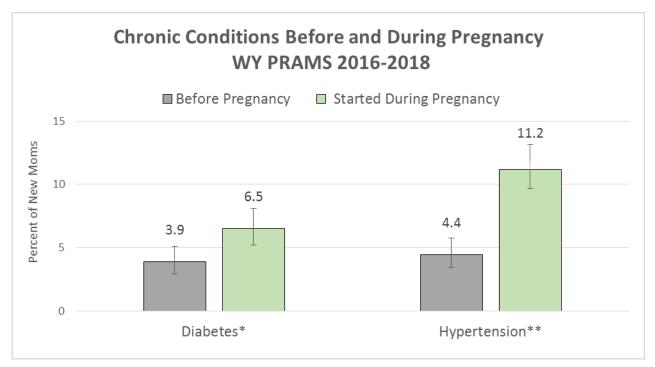
#### THE QUESTION:

During the 3 months before you got pregnant with your new baby, did you have any of the following health conditions?

% of women responding "Yes"

Source: WY PRAMS Data 2016-2018

# **Prevalence:** Diabetes and Hypertension



<sup>\*</sup> Type 1 or Type 2 Diabetes Before Pregnancy; Gestational Diabetes During Pregnancy.

I have always led a very healthy lifestyle, working out daily, eating right. I've never smoked, and I had regular medical and dental checkups.

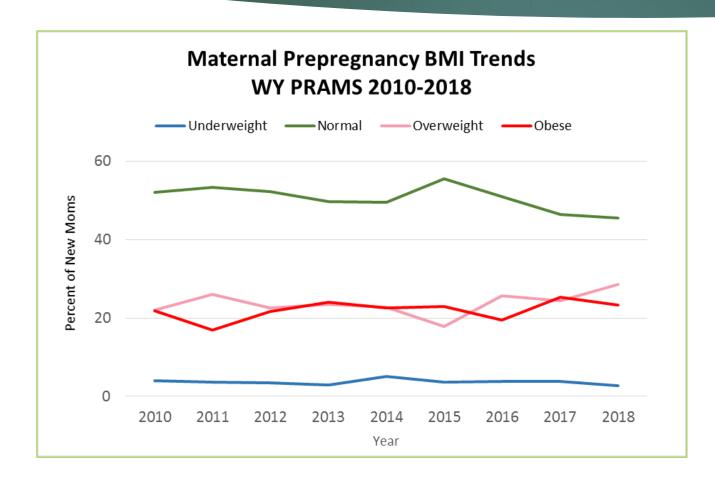
At 5 months pregnancy, I developed high blood pressure and at 7 months it progressed rapidly to severe pre-eclampsia and HELLP syndrome. My baby was delivered by C-section at only 31 weeks and spent 40 days in the NICU.

My baby was born 2 pounds 12 ounces. She is now over 9 pounds.

- WY PRAMS Mom, 2015

<sup>\*\*</sup> High Blood Pressure or Hypertension Before Pregnancy; High Blood Pressure, Pre-eclampsia or Eclampsia during Pregnancy.

#### **Preconception:** Prepregnancy BMI



- In 2010, over half
   (52.1%) of new moms in Wyoming were in the "normal" BMI range.
- In 2018, **45.5%** were in the normal range.



### Depression

- Preconceptual
- Prenatal
- Postpartum

This was the most stressful pregnancy so far for me.

My husband was very mean. I have never experienced so much stress in my life. He was constantly telling me he was going to leave me and go back to where we used to live.

He told me the hated me and wished our unborn baby would die. He told me he wished I would die.

I hated the whole pregnancy.

- WY PRAMS Mom, 2015

## **Question 2.** What % of Wyoming women said that they talked to their prenatal health care provider **about depression?**

A. 54%

B. **75%** 

C. 91%



Source: WY PRAMS Data 2016-2018

# How Does PRAMS Measure Postpartum Depression? (page 11, WY PRAMS Survey)

Since your new baby was born, how often have you felt down, depressed, or hopeless?

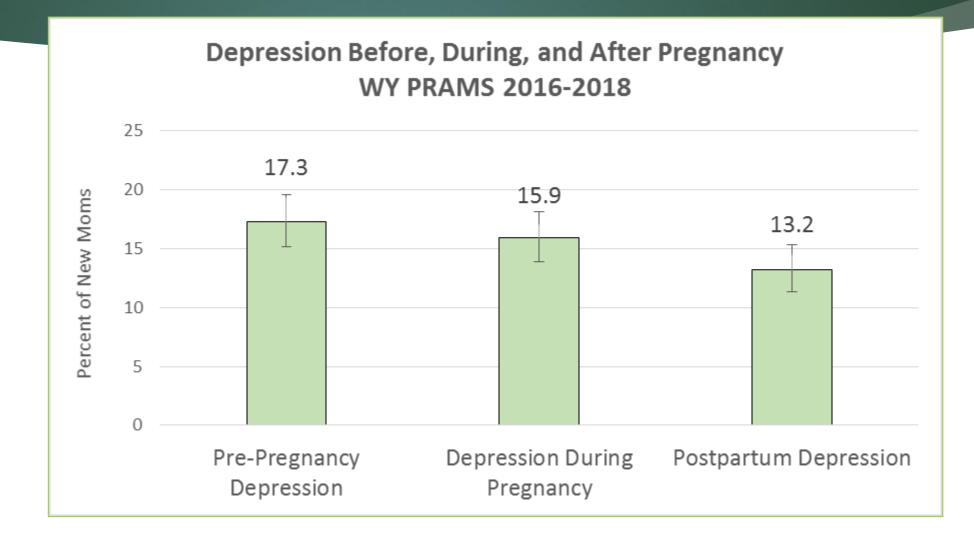
- Always
- Often
- Sometimes
- Rarely
- Never

Since your new baby was born, how often have you had little interest or little pleasure in doing things you usually enjoyed?

- Always
- Often
- Sometimes
- Rarely
- Never

Women who report a response of "often" or "always" to any of these questions are defined as experiencing self-reported postpartum depression.

#### **Depression:** Wyoming Statistics



#### **Depression:** Provider Discussion with New Moms

47.9% were asked about depression by a health care worker the year before they were pregnant (preconceptual period).

75.2% were asked about depression by a health care worker during their *prenatal* care visit.

84.7% were asked about depression by a health care working during their *postpartum* visit.



### Postpartum Depression (2016-2018 WY PRAMS)

17.3% Of Wyoming women living in poverty\* were at risk of postpartum

depression\*\* as compared to 7.7% of women at,

or above, the federal poverty level.

<sup>\* &</sup>lt;185% FPL versus 185% FPL or higher.

<sup>\*\*</sup> Depression occurring up to 1 year after having a baby.

### Substance Use

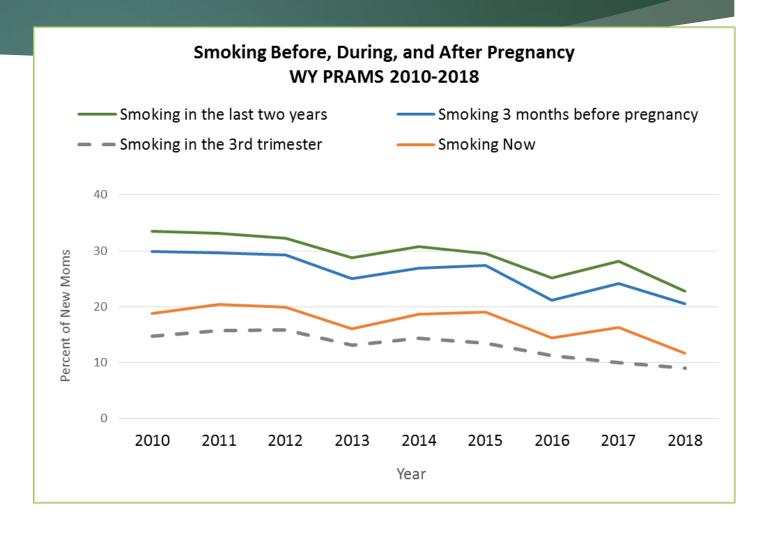
- Before
- During &
- After Pregnancy



#### Smoking and Pregnancy

Smoking before, during, and after pregnancy continues to trend downward.

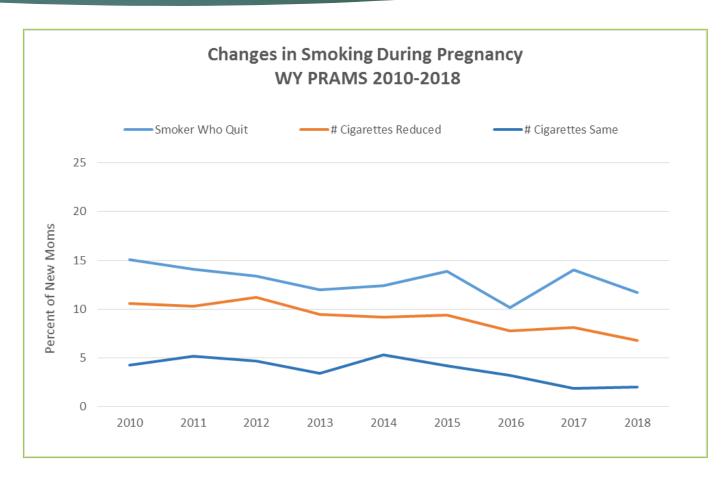
American Indian women were significantly more likely to report smoking 2 years before pregnancy, 3 months before pregnancy and in the 3<sup>rd</sup> trimester as compared to other Wyoming women.



# Changes in Smoking During Pregnancy

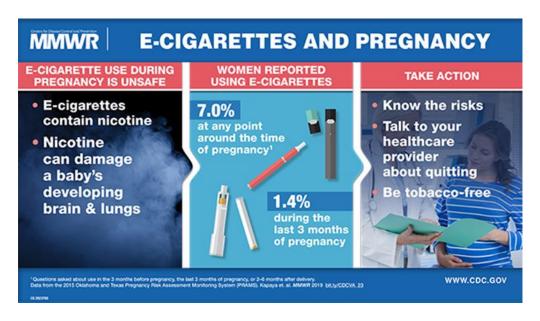
The majority of Wyoming women who recently delivered a live birth were non-smokers. In 2010, 70.2% of PRAMS Moms reported that they were did not smoke as compared to 2018 when 79.3% reported that they were non-smokers.

There were no significant changes in smokers who quit, those who reduced their smoking, or those whose smoking levels were the same between these two years.



### E-cigarettes and other similar products

Phase 8 of PRAMS includes questions about the use of E-cigarettes and other electronic nicotine products before and during pregnancy.



- **9.5%** of women reported the use of Ecigarettes in the *two years* before pregnancy.
- **6.1%** reported using E-Cigarettes in the 3 months before pregnancy.
- 1.6% reported E-cigarette use during the last 3 months of pregnancy.

Source: WY PRAMS Data 2016-2018

### E-cigarettes – who is using?

Women living in poverty were **more than twice** as likely to report using e-cigarettes in the two years before pregnancy as compared to women living at or above 185% FPL.

**12.6%** versus 5.9%; p-value = 0.0001

Similarly, women with Medicaid coverage were significantly more likely to report using E-cigarettes as compared those not enrolled.

**13.8%** VS. 6.5%; p-value 0.0002

There was no difference observed by race/ethnicity or maternal age.

Source: WY PRAMS Data 2016-2018

#### Question 3. What topics were most often discussed and least often discussed with women during the prenatal care visit?

#### A. Maternal Weight Gain (least - 54.8%)

- B. Using Drugs\* 82.9%
- C. Drinking Alcohol 95.7%
- D. Smoking Cigarettes (most 97.0%)
- E. Feeling Down or Depressed 75.2%



# Question 4. What proportion of new moms report that they drank during the 3<sup>rd</sup> trimester of pregnancy in Wyoming (2018)?

- 1. 20%
- 2. 7%
- 3. **3.3**%
- 4. 15%

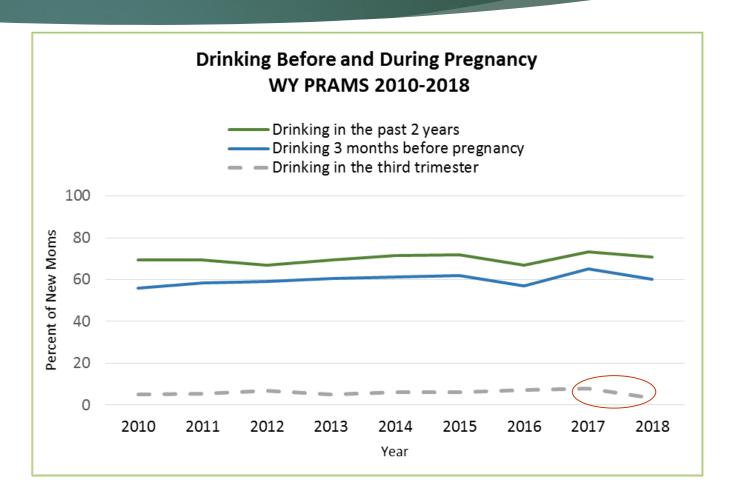


Source: Centers for Disease Control and Prevention

#### Drinking and Pregnancy

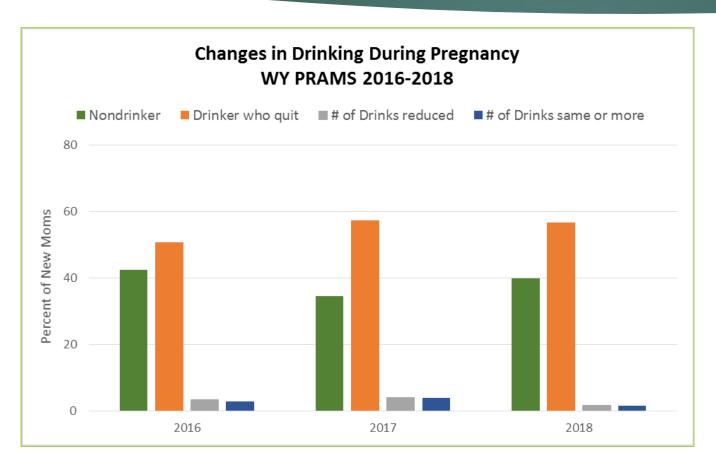
No significant changes were observed for women that reported drinking in the past two years or in the 3 months before pregnancy.

In 2018, **3.3%** of new mothers reported drinking in the 3<sup>rd</sup> trimester, a statistically significant decrease from the previous year (2017, 8.1%).



**2017:** 8.1% (95% CI 5.7-11.3) **2018:** 3.3% (95% CI 1.9-5.4)

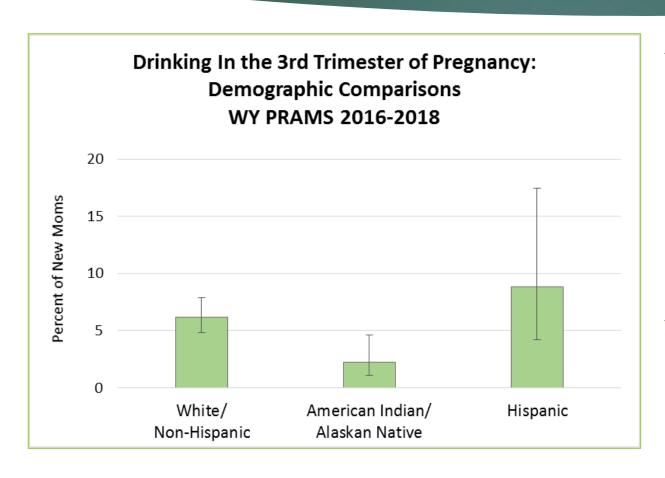
### Changes in Drinking During Pregnancy



There were no significant difference in changes in drinking during pregnancy during this period.



# Demographic Variations in Drinking During Pregnancy



- ✓ American Indian women were less likely to report drinking during pregnancy and were more likely to be non-drinkers when compared to White, non-Hispanic women. There was no significant difference between Hispanic women and either of the other groups.
- ✓ There were no significant differences in drinking during the 3<sup>rd</sup> trimester by poverty status or by Medicaid enrollment.

**Question 5.** The use of what drug was most commonly reported by women in the month **before** their pregnancy? WY PRAMS, 2016-2018.

- 1. Marijuana or Hash (6.6%)
- 2. Heroin (<1%)
- 3. Adderall or another stimulant (1.4%)
- Prescription Pain Relievers (a close 2<sup>nd</sup> at 6.5%)

Marijuana use was light and known to my doctor. She was okay with its medicinal use.

She also discussed potential issues for my baby with use. It was also only during early pregnancy.

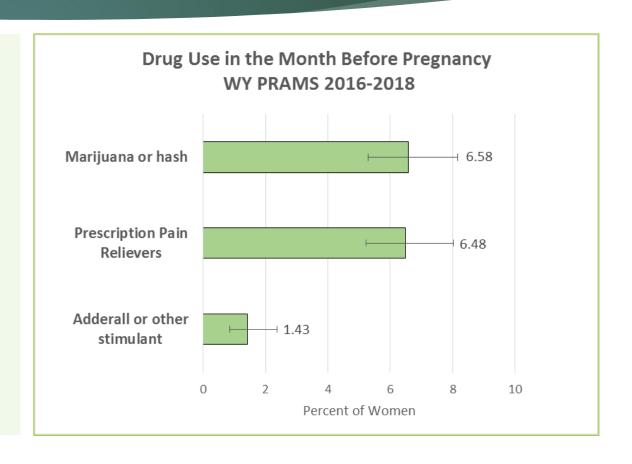
- WY PRAMS Mom, 2019

Source: WY PRAMS Data 2016-2018

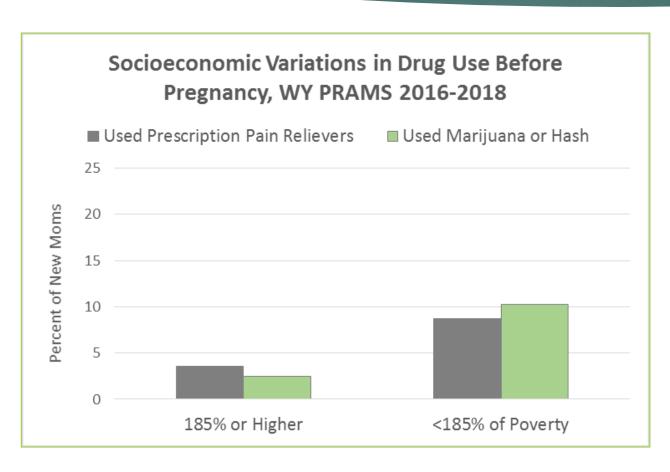
#### Drug Use Before Pregnancy

### Reported by less than 1% of Wyoming Moms (2016-2018 WY PRAMS):

- ✓ Synthetic Marijuana/K2/Spice
- Methadone
- ✓ Heroin
- Amphetamines, meth
- Cocaine
- Tranquilizers
- √ Hallucinogens/LSD
- Sniffing gas, glue, or huffing



### Demographic Variations in Drug Use Before Pregnancy, WY PRAMS 2016-2018



Women living below the 185% poverty line were significantly more likely to report the use of marijuana or hash, as well as prescription pain relievers, in the month before pregnancy as compared to women with incomes of 185% or higher.

# ACOG Opinion – Screening for Substance Use

"Screening for substance use should be a part of comprehensive obstetric care and should be done at the first prenatal visit in partnership with the pregnant woman.

Substance use disorders affect women across all racial and ethnic groups and all socioeconomic groups, and affect women in rural, urban, and suburban populations".



#### Wyoming's PRAMS Opioid Supplement

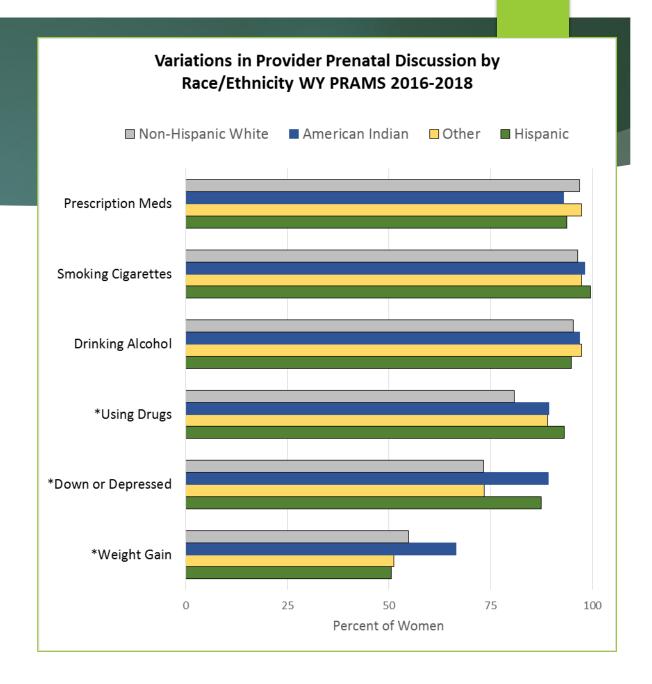
(page 13, WY PRAMS Survey)

- A CDC Supplement
- Wyoming began data collection in May 2019
- Wyoming will continue using these questions until the end of Phase 8 (about two more years) to collect more data.

- √ Prescription Pain Reliever Use During Pregnancy
- ✓ How Prescription Pain Relievers were obtained (doctor, left over from an earlier prescription, family/friend, etc.)
- ✓ Reasons for Use
- ✓ Trimester of Use (1st, 2nd, 3rd)
- ✓ Did you feel the need to cut back?
- √ Trouble cutting back?
- √ Need help to cut back?
- ✓ Medication assisted treatment to stop?
- ✓ General knowledge about the safety of prescription pain relievers for women & infants

## Prenatal Provider Discussion

- No difference in discussion for prescription medicine, smoking cigarettes, or drinking alcohol.
- Significant differences\* were observed for
  - Using Drugs
  - Down or Depressed
  - Maternal Weight Gain
- American Indian women were significantly\* more likely to report that providers discussed these three topics as compared to White, non-Hispanic Women.



### How You Can Help Wyoming PRAMS

- 1. Be aware of the Wyoming PRAMS survey so that you can answer questions if a Mom asks you about it.
- 2. Keep PRAMS materials available. We have book marks and pamphlets for you to take with you today. Just call us if you need more!
- 3. Use PRAMS data! Call us with questions, give us ideas about data you might need.





Sorry about the egg yolk on this survey, my 2-year-old wanted to help.
- WY PRAMS Mom, 2017

Questions? Lorie Wayne Chesnut, DrPH, MPH ~ <a href="lorie.chesnut@wyo.gov">lorie.chesnut@wyo.gov</a> ~ 307-777-6304